

Serial No. 09/840,212
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REMARKS

The Official Action has been carefully considered and the Examiner's comments are duly noted.

With respect to the present action, it is noted that this application is listed as a continuation-in-part of co-pending application Serial No. 09/796,982, filed February 22, 2000. These files were transferred to applicant's associate attorney, and before any change is made, it is believed that this application should be considered to be if anything a continuation of Serial No. 09/496,982, filed February 2, 2000 and before such change is made, applicant's attorney asks the Examiner if he agrees that this is correct and agreeable. More importantly, applicant's attorney is under the impression that an RCE application was filed for the Serial No. 09/496,982.

Further, applicant's attorney wishes to bring to the attention of the Examiner that a Petition was filed on January 18, 2002 with respect to the

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proper priority claims and to facilitate matters, a copy of this Petition is enclosed because it was filed in application 09/496,982.

In addition, the appropriate priority documents for the PCT Application and the Australian Application were also filed in the 09/496,982 application. If the Examiner desires official certified copies as distinguished from the enclosed copies of the certified copies to be filed in this application, the Examiner is respectfully asked to advise applicant's attorney.

In addition, on January 9, 2002, applicant's attorney filed a Claim to Priority in the 09/496,982 application as well as an Amendment to amend the preamble to the 09/496,982 application.

Therefore, applicant's attorney wants to work out the appropriate amendment for the preamble of this application for the specification.

Turning now more specifically to the Official Action of November 21, 2001, and paragraph 1 with respect to the priority claim, the certified copy of the Australian application as required by 35 U.S. 119(b) was filed, as

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noted above, in the original basic application 09/496,982, and as indicated above, applicant's attorney is awaiting further information from the Examiner on this point.

With respect to paragraph 2, applicant is waiting to discuss this with the Examiner.

Turning now more specifically to paragraphs 3 and 4 of the Official Action, claims 3, 4, and 8 are no longer in this application in their previous form. With respect to the former objection to claim 3, "similar" no longer appears in the claims.

Claim 4 had a formalistic objection which does not apply to the present claims, and applicant believes that the apparatus and method claims now in this application truly have the proper preamble.

Former claims 1 to 6 were rejected under 35 U.S. C. 102(b) as being anticipated by Sasaki, U.S. Patent No. 5, 520,824 with particular reference to Fig. 1. This reference has been carefully considered and applicant's attorney wishes to submit the following arguments and

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comments.

A clear distinction between the claims now submitted and the disclosure Sasaki is that applicant's belt is folded to form a trough whereas Sasaki's belt is twisted. It is believed that there is a distinction between the step of twisting a belt and the step of folding a belt, and it is also believed that there is a clear structural distinction between a twisted object and a folded object.

SASAKI might superficially appear to be close but it is in fact a system that works in a totally different way to that proposed by DAY, the inventor of this subject matter.

The problems that existed prior to Sasaki still exist. Please note the preamble pages of the patent specification and in particular page 2.

In SASAKI for instance, the so-called "looped filter cloth member" provides a first apparently horizontal surface onto which the solid liquid substance is poured and this is very vulnerable to overflow.

Consider on page 2 of the DAY specification, the 2nd and 3rd

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paragraphs describe this problem.

Note that two belts coming together, one above the other is not a folding of a single belt to form two adjacent sides.

DAY is also distinguished by having the downstream shape defined at a downstream location by a coming together of facing surfaces of one or more of the belts. Therefore, there is in this way therefore a water holding area.

A second important distinction is that Sasaki requires "Twisting". This is both a structural limitation and a method limitation.

Sasaki requires twisting as noted heretofore. If the Examiner will take paper and crumble or twist it, the Examiner will note that a crumbled paper or a crumbled belt as resulting from twisting will leave "voids" between the crumbled or twisted portions. These "voids" destroy the true interest of applicant's invention which is to crumble the material as finely as possible. If the material is located in a void, there is a failure to achieve a "crumbling".

Applicant upon appreciating that it was necessary to crumble the

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material as much as possible realized that this could only be accomplished in a nipping zone, and this was not and is not possible with a twisted belt. One just needs to look at a twisted rope, and they will find interstices of spaces.

The significant problem aside from the results obtained also produces problems with these types of devices relates to what is happening with the belt or belts so that the life of the belt in relation to currently available materials can be made to be adequate.

By twisting a belt and then wringing the material within the belt applies significant stress on the belt that, as a matter of time, will cause substantial deterioration to belts of this type.

In DAY, there is still some significant stress if it is a single belt and the crease is at the middle or center line.

The applicant also wishes to comments as follows:

"5,520, 824 - 5/1966 - Sasaki

a) *This invention relies on the filter fabric being twisted so it rolls*

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into a tube around a wringing roller. As I see it, The fabric seals when one of the "upper faces" of the fabric is rolled around to press on the "lower face" of the opposite side of the fabric. It is folded completely around itself to form a tube that "wraps" the sludge. My understanding is that If Sasaki didn't overlap the belt (which never as happens with the V-Fold) then dilute slurries must discharge from the folded belt at some stage at the "wringer" entry. The V-Fold patent claims both "upper faces" are pressed against each other. It also claims the faces remain essentially vertical.

b) In practice, Sasaki needs a soft, pliable filter fabric to enable it to repeatedly wrap around then unfold. Figure 2 shows pliable fabric and an embodiment describes rope edge guides inside folded fabric. Stiff fabrics such as / now use on the V-Fold would quickly crease and become damaged, especially if only a small amount of sludge was in the filter, if the belt didn't crease, it would form a strong hollow tube. The inside belt faces wouldn't touch, so dilute slurry would have a direct path from the feed end

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of the filter to the discharge end. (Sasaki actually mentions he is targeting thick slurries "with a large amount of solid content" whereas the V-Fold can process thick or thin slurries). He also doesn't use a belt with a "pliable" hinge to promote folding repeatedly on the same longitudinal line. This hinged section is not used on normal filter belts (although outer edge reinforcing is common).

c) Sasaki's patent requires at least 1 complete loop around a wringing roller. The V-Fold never has a complete loop.

d) Sasaki must have a secondary rotating motion of the wringing roller. The V-Fold does not.

e) I can't see how any of Sasaki's actual claims are relevant to the V-Fold claims."

The other patents have also been considered, and United States Nos. 6,190,570 and 6,221,265, apart from the technical point regarding the priority and publication date matter, would also appear to use a collection sheet and not an endless belt.

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If we are talking about a filter sheet, then we are talking simply about a material that acts as a filter and then captures and retains the material between its face on a discardable roll.

Also, from a technical point of view, there is at least with United States Nos. 6,237,270 and 6,221,265, no attempt to provide a reservoir shape or position.

The defining problem of overflow would still appear to exist even though there is the initial similarity of having some belt like member being folded into a facing sandwich shape.

The Examiner cites Japanese Patent No. 4640989 as disclosing feet of a prefilt into a folded belt filter followed by compression between two rows. If the Examiner considers this patent to be pertinent to the present claims, the Examiner is respectfully asked to provide an English translation to particularly point out where the portion of this Japanese patent meets the subject matter of any of the claims.

Noting the English abstract which appears in the right lower corner of

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the second page, what is called for is a tape-like filter paper having a close lower side and an upper open side. This is strictly a folded paper and does not start out from an unfolded condition and move into a folded condition. As best can be determined, elements 1 and 2 are two oppositely disposed rows to form a pinch roller combination to compress any material contained within the U shaped paper. It is difficult to ascertain whether rows 11 and 12 are merely alignment rollers or rows to move the paper together. It is also noticed that roller or belt containing the folded tape 6 starts out with a roller having two sides folded upon each other and as best can be determined with a crease in the center. Therefore, roller 6 never starts out with a roller in a horizontal direction which is used to divided the paper in an open horizontal direction. The paper starts out vertically and terminates vertically. Element 8 may be used to separate the two sides of the tape or to supply material.

The English translation indicates that a vessel which is assumed to be element 9 is formed by the tape-like filter paper in front of the pitch roller

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which is assumed to be rollers 1 and 2, then a portion for injecting liquid to be filtered is formed at the upper portion of the vessel. This would indicate that reference is made to the element 8. The L shape of the element 8 is not understood. Element 9 is assumed to be the filter receiving portion at the lower portion thereof.

Applicant claims no inventor's advantage for a tray to receive the crushed material and the liquid. But applicant is claiming as inventive is to start out with a tape or belt which has one face upwardly disposed and one face downwardly disposed, and then the belt with the upwardly disposed face is folded upon itself preferably folding the belt substantially in half so that the two outer edges meet with each other and form a trough portion. There is no teaching in this Japanese reference of forming a trough portion. Clearly, this reference together with the other reference of record does not apply to any of the claims now submitted.

Early and favorable reconsideration is respectfully solicited.

If there are any points outstanding, the Examiner is respectfully asked

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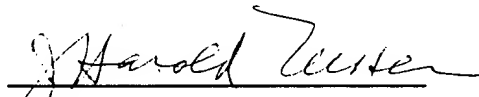
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to call the applicant's attorney, at 914-723-4300, in order to do what is necessary to place this application into condition for allowance.

As of this writing, applicant's attorney has not heard anything with respect to the last Supplemental Petition submitted to the Patent and Trademark Office.

Respectfully submitted

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